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SEP 21 2005

Customer No.: 31561
Application No.: 10/604,392
Docket No.: 10606-US-PAAMENDMENTIn The Claims:

Claim 1. (currently amended) A gas distributing system for delivering gaseous reactant to a reaction chamber during a wafer fabrication process, comprising:

a main gas distributing conduit branching out to a first gas distributing conduit and a second gas distributing conduit;

a first flow control valve along the first gas distributing conduit for controlling the gas flow rate inside the first gas distributing conduit;

a second flow control valve along the second gas distributing conduit for controlling the gas flow rate inside the second gas distributing conduit;

a top plate having a plurality of first gas nozzles at the outlet of communicating with the first gas distributing conduit, a plurality of second gas nozzles at the outlet of communicating with the second gas distributing conduit and around the first gas nozzles, and a gas barrier disposed in the top plate between the first gas nozzle and the second gas nozzle for preventing the mixing of gas from the first gas nozzle and the second gas nozzle; and

an upper electrode panel gas distributor having a first set of gas holes and a second set of gas holes thereon, wherein gas from the first gas nozzle passes into the reaction chamber through the first set of gas holes and gas from the second gas nozzle passes into the reaction chamber through the second set of gas holes.

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Claim 2. (original) The gas distributing system of claim 1, wherein the system further includes a control system having:

- a controller for adjusting the first flow control valve and the second flow control valve;
- a first gas flow detector along the first gas distributing conduit for detecting the gas flow rate inside the first gas distributing conduit and sending back a signal corresponding to the detected gas flow rate to the controller; and
- a second gas flow detector along the second gas distributing conduit for detecting the gas flow rate inside the second gas distributing conduit and sending back a signal corresponding to the detected gas flow rate to the controller.

Claim 3. (original) The gas distributing system of claim 2, wherein the first gas flow detector comprises a heated coil, and the second gas flow detector comprises a heated coil.

Claim 4. (original) The gas distributing system of claim 1, wherein the first flow control valve comprises a manually adjustable valve, and the second flow control valve comprises a manually adjustable valve.

Claim 5. (currently amended) The gas distributing system of claim 1, wherein the first gas nozzles is are positioned somewhere near the central region of the upper electrode panel distributor, and the second gas nozzles is are positioned somewhere near the peripheral region of the upper electrode panel distributor.

Claim 6. (original) The gas distributing system of claim 1, wherein the gas barrier comprises an O-ring.

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Claim 7. (original) The gas distributing system of claim 6, wherein the O-ring is fabricated using a material comprising elastic material.

Claim 8. (original) The gas distributing system of claim 6, wherein the O-ring is fabricated using a corrosion-resistant material.

Claim 9. (currently amended) The gas distributing system of claim 8, wherein the corrosion-resistant material comprises Teflon polytetrafluoroethylene.

Claim 10. (original) The gas distributing system of claim 1, wherein the first set of gas holes on the upper electrode panel distributor is evenly spaced.

Claim 11. (original) The gas distributing system of claim 1, wherein the second set of gas holes on the upper electrode panel distributor is evenly spaced.

Claims 12-16 (canceled).

Claim 17 (new) The gas distributing system of claim 1, further comprising a gas separator disposed between the main gas distributing conduit and the first and second gas distributing conduits.

Claim 18 (new) The gas distributing system of claim 17, wherein the gas separator comprises a first and second manually valves respectively along the first and second gas distributing conduits in the gas separator.

Claim 19 (new) The gas distributing system of claim 17, wherein the gas separator comprises:

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a first and second valves respectively along the first and second gas distributing conduits in the gas separator;

a first and second control circuits respectively controlling the first and second valves;
and

a first and second detectors respectively along the first and second gas distributing conduits in the gas separator.